

28TH ANNUAL WISE CONFERENCE

FEBRUARY 2, 2019

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Greetings! On behalf of the College of Engineering at the University of Washington, I am very happy to welcome you to the 2019 Women in Science & Engineering Conference.

Diversity is a core value of the UW College of Engineering. As it says on our website, "Engineering is a creative field that benefits from diverse experiences and perspectives. We must cultivate engineers from different backgrounds who bring different approaches to identifying and solving society's most pressing challenges." Gender diversity is a critical component of engineering diversity.

We're very proud that the UW College of Engineering continues to lead the nation in our percentage of female faculty in the College; 24 percent of our faculty are women which is the highest in the top 37 engineering schools in the country. This benefits you because research shows that having a female professor in engineering leads to greater success for female students in engineering.

This is my last year as Dean of the UW College of Engineering and it's been my goal to support gender diversity. Since my arrival, the percentage of bachelor's degrees awarded to women has increased from 23.3% in 2013-14 to 28.3% in 2017-18. I am certain that my successor will continue to make gender diversity a priority. I am particularly encouraged that our first Direct-to-College class is 33% women.

Enjoy the WiSE Conference!

MBAnges

Michael B. Bragg Frank & Julie Jungers Dean of Engineering



W OFFICE OF MINORITY AFFAIRS & DIVERSITY

Welcome to the 28th annual WiSE Conference!

The University of Washington Office of Minority Affairs & Diversity (OMA&D) is pleased to be a partner for this event.

As the vice president for OMA&D and the university diversity officer for the UW tri-campuses, I am tremendously optimistic about opportunities – such as this conference – that advance women in STEM disciplines. I am especially excited about the work being done in the College of Engineering. It is wonderful to bring together women from all backgrounds who aspire to be our next generation of engineers, scientists and technology experts.

There are several outstanding diversity and equity initiatives underway at the UW and I am thrilled to help move this work forward with our campus community. We are truly committed to inclusive excellence and establishing diversity as an educational and societal benefit. In order to create a culture of excellence in STEM, or any fields for that matter, we must have this commitment. That means cultivating opportunities to empower all of you.

We are honored to have you in attendance today, and we hope the resources, knowledge and networking opportunities you receive will continue to energize your academic and professional pursuits.

Sincerely,

3 Hall

Rickey Hall Vice President for Minority Affairs & Diversity University Diversity Officer



KEYNOTE SPEAKER



National Aeronautics and Space Administration Lyndon B. Johnson Space Center

NUJOUD MERANCY – BIOGRAPHY Exploration Mission Analysis Lead Exploration Integration & Science Division

Education:

B.S. Aeronautical and Astronautical Engineering, University of Washington

M.S. Systems Engineering, University of Houston – Clear Lake

Ms. Merancy is a systems engineer with extensive background in human spaceflight and spacecraft at NASA Johnson Space Center. She is currently the Exploration Mission Analysis Lead responsible for the mission design, integration, and performance for human exploration beyond low Earth orbit with the Orion Vehicle, Space Launch System, and Exploration Ground Systems teams. She is responsible for ensuring the mission design, trajectory, and objectives can be successfully met by the vehicle and supporting elements during exploration operations. She has previously lead the team developing the Orion integrated mission execution, vehicle performance analysis, and exploration mission design. Her work experience includes systems integration, test and verification, vehicle performance analysis, guidance, navigation, & control, requirements engineering, and real-time operations spanning the International Space Station Program from 2002 to 2008; the MPCV-Orion Program from 2009 until 2018, and now the Exploration Systems Division.



GENERAL EVENT SCHEDULE

Conference Location: Husky Union Building (HUB)

- 8:15 Check-in / Registration Second Floor – "The Mural Room"
- 8:30 Pre-Conference Session + Continental Breakfast Networking with WiSE North Ballroom, 211A
- 9:30 Welcome and Conference Opening North Ballroom, 211A
- 9:55 Workshop Session 1 HUB Meeting Rooms
- **11:25** Workshop Session 2 HUB Meeting Rooms
- **12:45** Lunch / Career Resource Fair North Ballroom, 211A
- 2:15 Closing Program / Keynote Speaker Nujoud Merancy, NASA North Ballroom, 211A
- 3:30 2019 WiSE Conference Ends

WORKSHOP SESSIONS

Session #1

- 1. Better Health through Engineering and Science
- 2. Degree ≠ Career: The Multiple Paths to IT & Cybersecurity
- 3. How to Make Your Mind Work for You
- 4. Just Say No!
- 5. Map your Trajectory in Aviation and Space
- 6. Navigating Your Career: Standing Up and Out
- 7. Sustainability and Resiliency: Meeting Opportunities and Challenges in the Power Industry

Session #2

- 1. Careers in Engineering
- 2. Crush Your Coding
- 3. From Concept to Company: Entrepreneurship for Engineers and Scientists
- 4. Jump into Life! Use the Power of Curiosity to Discover, Explore, and Innovate
- 5. Pathways to Environmental STEM Careers
- 6. Surviving and Thriving: Resilience Skills for Women in STEM
- 7. Wireless Networking at a Time of Unprecedented Change

WORKSHOP DETAILS

Session #1

1. Better Health through Engineering and Science

Reitha Weeks (Shoreline Community College)

Engineers and scientists are critical to improving health. Panelists from academia and industry will share their education paths and career experiences in drug development, medical device innovation, manufacturing, and diagnostics. You will leave with practical advice and renewed motivation to apply your degree to a health-related field.

1. Degree ≠ Career: The Multiple Paths to IT & Cybersecurity

Elise Groves (UW Athletics Information Technology)

Are you curious about the impact your degree will have on your career path? Our panel is composed of young professionals who have worked at organizations such as UW, Boeing, Amazon and REI. They all share different paths to their ultimate destination of IT, Cybersecurity and Computer Sciences. Hear about lessons learned in the decisions they made and what impacted their careers.

2. How to Make Your Mind Work for You

June Hairston, Ed.D. (Director of University of Washington Office of Minority Affairs, PNW LSAMP)

The material presented in today's workshop will focus on creating a lifestyle that promotes health. You will learn tips for using your thoughts to improve your overall intellect, cognitive performance and mental and physical well-being. Use this information to create your roadmap to success on all levels!

3. Just Say No!

Eve Riskin (University of Washington, Associate Dean and Professor of Electrical and Computer Engineering)

Do you get too many requests on your time? Do people ever ask you to do something "because we need a woman"? Come to this workshop to learn to identify situations where you should say yes, and where you can feel good about saying "no."

4. Map your Trajectory in Aviation & Space

Raquel Cundiff (The Boeing Company)

Are you curious about the career opportunities in aviation and space industry? From airplanes to rockets, this workshop will give you the opportunity to meet a panel of industry and academic leaders who will discuss their academic and career journey, how their organization contributes to this growing field, and provide tips and guidance on mapping out a pathway to launch your goals.

5. Navigating Your Career: Standing Up and Out

Gail Cornelius (University of Washington Career Center @ Engineering)

Have you asked yourself what makes me unique? How do you stand out on your resume and in person to obtain that desired internship, first career position, or even the school of your choice? Distinctiveness sets you apart! Your individual differences, how you communicate your skills, present your personal brand and project your self-confidence demonstrate your uniqueness

6. Sustainability and Resiliency: Meeting Opportunities and Challenges in the Power Industry

Daniel Kirschen (University of Washington, Professor of Electrical and Computer Engineering)

The electric power industry is going through a period of enormous changes. Driven by the need to build a sustainable, carbon-free economy, conventional power plants are rapidly being replaced by wind farms and solar generation. However, the wind does not always blow and clouds block the sun. This creates significant problems in the operation of the power grid that spur a host of new technologies, such as energy storage, demand response systems, and optimizing power delivery from new forms of energy. At the same time, increasing concerns about the resilience of the power grid to natural disasters force a re-thinking of the fundamental structure of our current grid. Our panelists will discuss how they address these challenges through their jobs; experiences working in power and energy; preparation and pathway into this field; as well as the increase and diversity of career opportunities for future STEM majors.

Session #2

1. Careers in Engineering

Eve Riskin (University of Washington, Associate Dean and Professor of Computer and Electrical Engineering)

Come talk about engineering careers! A panel of women who work in local engineering firms share their backgrounds and how they are using their engineering degrees in different careers.

2. Crush Your Coding

Bill Haughney (Facebook)

Never attended a technical interview before? Want to extra-prepare for your next one? Technical interviews are one of the major hurdles of landing an awesome internship or fulltime career. Come learn about the common pitfalls and tips to help you crush your next coding interview! You will hear from Facebook engineers about interviewing tips and the best way to show your strengths on a whiteboard.

3. From Concept to Company: Entrepreneurship for Engineers & Scientists

Reitha Weeks (Shoreline Community College)

Are you drawn to the world of business? Have you considered starting a company or working for a start-up? Learn about UW's amazing resources for making your business dreams come true. Hear from panelists with engineering and science backgrounds who started companies or use their degrees in industry settings.

4. Jump into Life! Use the Power of Curiosity to Discover, Explore, and Innovate

Jolene Jang (Jump into Life)

When you go left instead of right, adventure waits on every corner. Can you imagine the adventure and all the gains knowing that you can do things differently? My goal is to get you to *Jump into Life* and to be fully engaged. I will equip you with self-development tools to be confident and curious. Through this process, I will intrigue you with neuroscience and biohacking. With these tools, you will create more opportunities to choose from. In this discussion you will learn to flex your curiosity muscle to explore new opportunities; invite

divergent opinions fostering a strong foundation; and tap into different resources to add zing to attract attention.

5. Pathways to Environmental STEM Careers

Heidi Gough (University of Washington, Professor of Environmental and Forest Sciences)

The environment impacts biodiversity, natural resources, and human health, and environmental STEM professionals play critical leadership roles at all levels. This workshop introduces multiple career paths of women working in the environmental industry. Breakout sessions will allow attendees to interact and engage on a closer basis with the presenters.

6. Surviving and Thriving: Resilience Skills for Women in STEM

Jaclyn Lally (University of Washington, School of Education)

College can be an exciting time. Full of growth and possibilities. All of these changes can cause us a great deal of stress. These pressures and challenges do not end once we graduate to the workforce. Resilience is the ability to adapt in the face of stress, preserve through the challenge, and thrive as a result of it all. This presentation will share practical skills that allow you to intentionally build resilience for now and in your future careers, ultimately allowing you to lead a more effective, productive, and fulfilling life.

7. Wireless Networking at a Time of Unprecedented Change

Sumit Roy (University of Washington, Professor of Electrical and Computer Engineering)

The impending roll-out of next generation (5G) networks will not only mean improved services for cellular users, it will also enable significant new industry segments such as the "Internet of Things" and autonomous vehicular operation. The opportunity for spectrum sharing among a variety of different communication networks will represent another unique dimension in communication engineering, where calculating and optimizing network capacity, as well as developing new ways to enable the spectrum to handle increasing demand, will provide new challenges and opportunities for engineers. Panelists will engage students in reflecting on the implications of these challenges in preparing for industrial or research and development careers.

WORKSHOP SPEAKER INFORMATION

Workshop	Name	Company	Link
Session 1			
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Better Health through Engineering and Science.	Karen Brentnall	OtoNexus Medical Technologies / Medical Device Development	https://www.linkedin.com/in/karen- walters-brentnall-719bb91/
	Ezgi Mercan	Seattle Children's Hospital	https://www.linkedin.com/in/ezgi-mercan- 2a785b13/
	Brynn Olden	Juno Therapeutics/Celgen e	https://www.linkedin.com/in/brynnolden/
	Allie Sibole	PATH	https://www.linkedin.com/in/allie-sibole- 6345254b/
	Chelsea Thornburg	AGC Biologics	https://www.linkedin.com/in/chelseathorn burg/
	Alyssa Taylor	UW	https://bioe.uw.edu/portfolio-items/taylor/
	Reitha Weeks	Shoreline Community College	https://www.linkedin.com/in/reitha-weeks- 8193aa128/
Degree ≠ Career: The Multiple Paths to IT & Cybersecurity.	Chelsea	Bell	https://www.linkedin.com/in/chelsea-bell- 18877b88/
	Tracy Daly	Boeing	https://www.linkedin.com/in/tracy-daly- 719a67a/
	Marissa Nishimoto	Yubico	https://www.linkedin.com/in/marissa- nishimoto-16138367/
	Alpha Diallo	Boeing	https://www.linkedin.com/in/alpha-diallo- 100ab327/
	Daniel Nguyen	Boeing	https://www.linkedin.com/in/daniel- nguyen-5255b069/
How to Make Your Mind Work for You.	June Hairston	UW	https://www.linkedin.com/in/june-hairston- 7289b332/
Just Say No!	Eve Riskin	UW	https://www.ece.uw.edu/people/eve-a- riskin/
Map your Trajectory in Aviation & Space.	Behcet Acikmese	UW	https://www.linkedin.com/in/behcet- acikmese-7a28226/
	Sara Baer	Alaska Airlines	N/A

	Spring Beasley	Boeing	https://www.linkedin.com/in/spring-
			beasley-3a262014
	Michelle Christensen	Blue Origin	https://www.linkedin.com/in/michelle-k- christensen/
	Nicole Cain	Galvin Flying	https://galvinflying.com/instructors/
	Raquel Cundiff	Boeing	https://www.linkedin.com/in/raquel- cundiff-bb887a8/
Navigating Your Career:	Gail Cornelius	UW	https://www.linkedin.com/in/gailcornelius/
Standing Up and Out.	Alice Kim	UW	https://www.linkedin.com/in/alicekyh/
	Michael More	UW	https://www.engr.washington.edu/current/ careercenter
Wireless Networking at a Time of Unprecedented Change.	Payman Arabshahi	UW	https://www.ece.uw.edu/people/payman- arabshahi/
	Yasmin Karimli	T-Mobile	https://www.linkedin.com/in/yasmin- karimli-9a4a6532
	Sumit Roy	UW	https://www.ece.uw.edu/people/sumit-roy/
	Sarah Webster	UW	https://www.linkedin.com/in/sarah- webster-a3973855
	Brenda Larson	UW	https://www.linkedin.com/in/bjplarson/
Session 2			
Careers in Engineering.	Jenny Blackburn	Amazon	https://www.linkedin.com/in/jennyblackbur n/
	Swetha Narayanaswamy	F5 Networks	https://www.linkedin.com/in/swetha- narayanaswamy-62012a1/
	Joanna Power	Allen Institute for Artificial Intelligence	https://www.linkedin.com/in/jpower/
	Eve Riskin	UW	http://www.ee.washington.edu/people/eve -a-riskin/
	Jessica Tran	Microsoft	https://www.linkedin.com/in/jessicajtran/
Crush Your Coding.	Alice Meng	Facebook	https://www.linkedin.com/in/aliceyimeng/
	Cameron Pickett	Facebook	https://www.linkedin.com/in/cameron- pickett-30965a50/
From Concept to Company: Entrepreneurship for Engineers & Scientists.	Mackenzie Andrews	UW	https://www.linkedin.com/in/mackenzie- andrews
	Jennifer McCullar	UW	https://www.linkedin.com/in/jennifer- mccullar-44019414/

	Kristine Parra	UW	https://www.woot.wook/wook/contents.org/w/ooms.org
	Kristine Parra	000	https://www.wcet.washington.edu/person
			<u>s/kristine-parra/</u>
	Ingrid Pultz	PVP Biologics, Inc.	https://www.pvpbio.com
	Reitha Weeks	Shoreline Community	https://www.linkedin.com/in/reitha-weeks-
		College	<u>8193aa128/</u>
Jump into Life! Use the Power	Jolene Jang	Culture Explorer	https://www.facebook.com/jolenejanghap
of Curiosity to Discover,	Julerie Jariy		py/
Explore and Innovate.			
Explore and mnovate.			
Pathways to Environmental STEM Careers.	Esther Chang	Jacobs	https://www.linkedin.com/in/changest/
	Christina Curtis	City of Everett	http://linkedin.com/in/christinacurtispe
	Melinda Friedman	Confluence	https://www.linkedin.com/in/melinda-
		Engineering Group,	friedman-7115779/
		LLČ	
		1.0.4/	
	Heidi Gough	UW	https://www.linkedin.com/in/heidi-gough-
			<u>098a5513/</u>
Surviving and Thriving:	Jaclyn Lally	UW	https://www.linkedin.com/in/jaclyn-lally-
Resilience Skills for Women in			81636a13/
STEM.			
Sustainability and Resiliency: Meeting Opportunities and Challenges in the Power	Jackie Baum	UW	https://www.linkedin.com/in/jackiebaum/
	Anna Edwards	Doosan GridTech	https://www.linkedin.com/in/annaedwards
3			8/
Industry.			—
	Ahlmahz Negash	Tacoma Public	https://www.linkedin.com/in/ahlmahz-
		Utilities	negash-phd-b80935107
	Jaclyn Wilson	Puget Sound Energy	https://www.linkedin.com/in/jaclynwilson1
	Brenda Larson	UW	https://www.linkedin.com/in/bjplarson/